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ABSTRACT

Open learning is the act or process of acquiring knowledge or a skill that is accessible and available, not confined or concealed, and that implies a continuum of access and opportunity. All open schools have one thing in common: they are to a greater or lesser extent efforts to expand the freedoms of learners. The trend towards open forms of learning cannot be separated from the extraordinary efforts in our times to create, if not a new America or a new humanity, at least better situations out of which an improved human condition may evolve. But the open learning trend is also related to a number of other phenomena--social, economic, political, technological, demographic, and educational, which has important implications for standard, conventional education, as well as for independent study. The implications seem to be significant in seven areas: mission; operations; student body; academic, curriculum, instruction, learning and reward system; access; diffusion and communications systems; and institutional support. The open learning trend is the child of independent study. It affects its parents in significant ways. This child, in fact, may win the acceptance so long denied to its parents. (Author/KE)

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Implications of Open Learning for Independent Study

by

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I. The Open Learning Phenomenon - A Trend.

When Adlai Stevenson was running for the Presidency of the United States against Dwight Eisenhower he once commented that "The dream of a new America begins in a classroom." And the French essayist, Guèhenno, quickly provided a more global view: "The dream of a new humanity anywhere can only begin in a classroom." (1)

The trend towards open forms of learning, in this country and elsewhere, cannot be separated from the extraordinary efforts in our times to create, if not a new America or a new humanity, at least better situations out of which an improved human condition may in time evolve. But the open learning trend is also related to a number of other phenomena--social, economic, politic, technologic, demographic and educational.

First, however, we must define what is meant by "open learning". Learning is the act or process of acquiring knowledge or skill. When the adjective 'open' is used to qualify 'learning' we have put a name to a process of learning that is not enclosed or encumbered by barriers, that is accessible and available, not confined or concealed, and that implies a continuum of access and opportunity.

"The term 'open' has been given to so many experimental programs, at so many levels, that it is difficult to find a common definition that will describe -- or be acceptable to -- all the different enterprises that use the term. There are

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'open' schools at the pre-school level, the primary-elementary and secondary level, and in higher and continuing education. However, all the open schools have one principle in common: they are to a greater or lesser extent efforts to expand the freedoms of learners. Some of the open schools are open only in a spatial sense, with learners in school free to move about in more individualized work patterns; others provide freedoms in more significant dimensions -- in admissions, in selection of courses, in adaptation of the curriculum to the individual, and freedoms in time as well as spatial aspects (i.e., learners permitted to start, stop, and proceed at their own pace and convenience). Still others approach the ultimate freedoms -- learner goal selection, reaching the learner where he is, in his own environment and situation, on his own terms, and involving him in the evaluation of achievement of the goals that he has selected." (2)

The ideal concept of open education would take the form of education permanente, open to people at all levels, cradle-to-grave.

If one were to create an institution or institutions congruent with this enlarged definition and to accomplish its implied goals, what characteristics would such an institution have? Ten characteristics of open learning systems were identified in a recent study carried out by the NAEB for the U.S. National Institute of Education. (3)

The ten systems characteristics are:

1. The system is capable of eliciting, interpreting and analyzing learner goals and abilities at the entry point and throughout the student's participation with the instructional and learning program.

2. The system acknowledges that it embodies two separate but related programs -- the instructional program embodied in the institutional system; and the learning program carried on by learners with the assistance of the system.

3. The system is capable of enabling learners to participate in the program of learning and instruction without imposing traditional academic entry requirements, without the pursuit of an academic degree or other certification as the exclusive reward.

4. The system requires formulation of learning objectives in such a way that they can serve as the basis for decisions in instructional design, including evaluation, and in such a way that they will not only be fully known to the students, but so that students can participate in decision-making.

5. As an operating principle, the system is capable, after reaching a critical minimum of aggregation, of accommodating increased numbers of learners without a commensurate increase in the unit cost of the basic learning experiences: i.e., costs must not be directly and rigidly volume sensitive. After reaching the necessary level of aggregation, unit costs should show a diminishing relationship to total systems costs.

6. The system makes it operationally possible for the methdologies of instruction and learning to employ sound, video, film, print and other communication-diffusion technologies as vehicles and options for mediating learning experiences.

7. The system uses testing and evaluation principally to diagnose and analyze the accomplishment of specified learning objectives, including the objective of self-directed rather than other-directed learning.

8. The system is able to tolerate distance between the instructional staff and resources, and the learner, and employs the distance factor as a positive element in the development of independence in learning.

9. The system accepts the learner and his surround as the environment for learning, and concentrates on enriching that environment instead of developing specialized teaching environments which intrude barriers of place, space, time and other-direction in learning.

10. The system seeks, obtains, and maintains the active cooperation of community and regional resources which can be important factors in enriching the learning environment, in diminishing learner dependence on a single resource, and in returning learning as a natural and continuing activity to the living space, the indigenous learning environment which includes living, working, recreating and learning....as an essential step towards the "learning society".

Actual open learning systems (institutions) reveal considerable variation in the ways in which they do or do not exhibit the ten characteristics identified. Put another way, 'openness' (in concept or systems characteristics) is certainly

not an absolute quality. First, there is a range of openness displayed by any one institution, which may be open with respect to some, but not other characteristics; second, if all institutions of higher education (including those called 'open') were to be ranked on a scale from 'closed' to 'open', one would probably get a distribution that looks very much like a skewed bell shaped curve. That is, there would be a few institutions at the extremes or 'entirely closed' or 'entirely open'; a loose clustering of many institutions which exhibit some characteristics of openness; and a fairly extensive range between the institutions which mark the actual extremes on the scale. However, the differences revealed in the groupings are real, even though the criteria for measurement are still rough and somewhat primitive. (4)

We must now look at the dimensions of open learning to establish whether there is a trend. Social institutions are created to operate within contexts which give them viability and relevance. When contexts change, as they now have, institutions lose viability and relevance for some portion of the society they are intended to serve. It is then necessary to adapt or modify institutions according to the new contexts, or, if that doesn't succeed, to create new institutions.

Since World War II we have been busy adapting and modifying our institutions to fit the new contexts. These contextual changes are the root of the turmoil and disarray in higher education in the past two decades. They are the practical, quantifiable elements that comprise the present reality context in which higher education exists. The open learning concept and characteristics seem to have a high degree of congruence with the needs-requirements for learning within the new societal contexts; while on the other hand, conventional higher education institutions, created in other times, other contexts, and on the models of even older institutions, seem to exhibit increasingly poorer congruence. (5)

Is open learning congruent with current ideological tendencies or drift? We know that any higher education institution must meet, reasonably well, the expectations and aspirations of its patrons or clients if it is to continue to enjoy that gentle rain of public or private subsidy which is essential for its survival. The ideological tendencies of the times, however unquantifiable, constitute another shift of context. Studies of the attitudes of youth in the 60's and 70's (e.g.: The Rockefeller Report of '71, by David Yankelovich, Inc., and Ginott, "Between Parent and Teenager," Fortune; '69; in Sweden the SIFO Studies of '69-'70-'71-'72, and the studies of Clas Westrill) give important leads in understanding ideological shifts.

For example, youth seem to be saying:

"Do not study to reach a position; study what is worthwhile and self-developing."

"Say goodbye to marks and merits. Make yourself a worthy person."

We note that over 50% of U.S. youth want a change in the education system--especially in the universities. They attack the rigidity of the school system; they want it to adapt better to present-day society. They also want more democracy in the schools. They want a decentralization of education.

Youth seem to realize and accept they may have more than one profession or occupation in their lives. They see life as a series of short pulls; the new ars vivendi (art of living) is to create a tolerable life pattern out of unsequential, scattered contributions, experiences, learnings somehow brought together to form continually evolving meanings. Is this a fresh perspective on lifelong learning?

Surveys of older citizens show somewhat different attitudes, but a surprising agreement respecting attitudes towards the changes needed in schools, and strong desires for a more open and democratic learning system, acceptance of

technology in learning, and perceptions of learning needs (for retraining/new career lines/coping/fulfillment) that are way ahead of present programming in post secondary and continuing education. We sense a strong desire--almost a demand--from youth and adult surveys--to create the "moral" school--one that diligently serves learners more than it serves itself. (6)

In addition, technological development and extended exposure to the mass media have already convinced millions of people they can learn as well from mediated instruction as in conventional classrooms. The consistent yield of "no significant difference" in comparative studies of instruction methods backs them up. (7)

What are th dimensions of scale respecting the open learning phenomenon? Here we are concerned with scope (aggregation) and persistence. The adjective 'open' was not formally applied to any school or university until 1969. It was in that year that Queen Elizabeth II granted a charter to a new British university. The concept of openness, however, which the Open University was created to implement on a national scale was not new. The roots of the concept go back at least to the beginning of the 20th Century. It is clearly grafted to the British and American concepts of university extension and independent study. (8) This may be one of the reasons the open learning phenomenon--in so short a time--has won a remarkable degree of acceptance in the face of much initial institutional hostility and contemptuous disregard, and has spread so rapidly. The seeds for open learning were on every campus that had had experience with university extension and independent study.

In the United States there are presently about 90 post secondary-higher education institutions that have been identified as engaging in open learning. (9) Furthermore, the number of local, state, regional and national study groups weighing the questions of open learning suggests that this is an issue of

unusual importance. New institutional forms are springing up under various names (Empire State College, University Without Walls, University of Mid-America, Regents Degree Programs, Independence University) and under various sponsorship (public and private); institutional consortia for open learning are being developed, and older institutions are experimenting with various aspects of openness in programs for certain learners.

A series of U.S. national and state commissions, both public and private, have plowed and replowed the issues in open learning, either as a primary or secondary focus: The Commission on Non-Traditional Study, The Carnegie Commission, The National Association of Educational Broadcasters, The Educational Media Council, the Commission on Education of the National Academy of Engineering of the National Academy of Science, and numerous state commissions and private commissions for groups (i.e., Jewish learned societies). The U.S. Office of Education and NIE have sponsored studies of open learning issues, and private foundations and the NIE have made grants for the development of open learning systems.

In terms of sustained interest, the generation of innovative forms, rapid growth in the number of proposed and operating programs, and the increasing flow of remarkably consistent policy recommendations from diverse sources in support of open learning, the scale of the open learning phenomenon in the U.S. appears to be significant. Outside the U.S. the story is the same. Open learning is a world wide phenomenon and trend. (10)

II. Relationship to Independent Study.

In the western world, for approximately 80 years (1850-1930) correspondence study was the only formal system of teaching and learning that enabled learners--wherever they were, and whatever their condition--to overcome the formidable barriers of space, time, social place and economic status in the pursuit of learning. By 1930, telecommunications linked to education began to increase the

options available to learners. Today correspondence study is only one of a number of means for learning apart from conventional schooling.

It is curious and unfortunate that during that 80-year period when correspondence study had an almost absolute monopoly as the only alternative to traditional learning, there was no interest in correspondence study as a method of learning. From Langenscheit to ICS, there are fairly lucid accounts of the process of administering teaching by correspondence, but virtually nothing about the learners, the teachers, and teaching and learning by this method. Even William Rainey Harper and William H. Lighty, representative as they were of an awakening interest on the part of American universities, in an alternate method of "extending to the people" opportunities for learning that conventionally went only to an elite few, contributed little to correspondence study as a novel method of teaching and learning.

Yet during this same period the American psychologist-philosopher, William James, published his best known works, Sigmund Freud published his most famous treatises, and John Dewey, contemporary with Freud and James, revitalized American schooling with his concept of 'progressive' education. Except that correspondence study did not penetrate the concerns of professional education, it was a period of lively development in education and psychology.

Unfortunately the educationists of the time had their gaze so riveted on what was under their noses that they completely overlooked one of the most important educational trends of the period--the rise and development of correspondence study as an alternate to regular schooling.

Yet, after over 100 years of existence, correspondence study is only just now beginning to be taken seriously as an important methodology and alternative. Indeed, many of the most innovative applications of correspondence study--in open learning systems for example--are being undertaken by people who are ignorant of

correspondence study and hence proceed as though their experiments are de novo.

It is unfortunately true that the failures of correspondence study to develop a theory related to the mainstream of educational thought and practice have seriously handicapped the development and recognition of this field, and will continue to do so. Theory provides a means of explaining, through general propositions or principles, a phenomenon or class of phenomena.

Theories are part of the milieu of any culture; as such they condition us by defining realities in certain ways; from them we learn to anticipate, recognize, have feelings for, and react to phenomena. While unchallenged theories may be assumptions which can trap the unwary and make him a prisoner of the past, or of some concept of the present or future that is a delusion, the absence of theory is even more misleading. Without theory we are mere operators at an early stage of learning with respect to our craft; artisans, perhaps, but not true professionals. (11)

125 years ago, correspondence study was a significant methodological innovation, well ahead of the development of educational and learning theory. It has an important significance to general learning theory and points towards a new typology for all teaching-learning methodologies.

Correspondence study, home study, distance education; and radio education, television teaching--in fact all forms of mediated instruction (correspondence is a medium)--belong to a larger, generic class which we in the U.S. tend to call "independent study". This term is used because it provides an important link to general learning theory and accepted practice in mainstream education and because it emphasizes teaching and learning rather than medium or distance.

The definitions of independent study supplied by Bonthius, David and Drushal: "teaching and learning which focuses on the individual instead of the group, which emphasizes the person-to-person relationship between teacher and

student" and "the pursuit of special topics or projects by individual students under the guidance of faculty advisers apart from organized courses" (12) posit a tutorial teacher-student relationship in an implied campus context for "special" work. Except for the medium of communication, much correspondence study would fit this definition.

Gleason broadened the definition by observing that independent study is composed of instructional systems which "make it possible for the learner to pursue the study of personally significant areas in an independent manner--freed of bonds of time, space, and prescription usually imposed by conventional instruction." (13) Dubin and Taveggia recognized two kinds of independent study: One including teacher-direction and guidance in the learning process, and the other emphasizing the learner in recognition that learning can and does take place in the absence of the teacher. (14)

Recently a definition which is inclusive of both internal and external learners has become widely accepted:

> "Independent Study consists of various forms of teaching-learning arrangements in which teachers and learners carry out their essential tasks and responsibilities apart from one another, communicating in a variety of ways, for the purposes of freeing internal learners from inappropriate class pacings or patterns, or providing external learners opportunity to continue learning in their own environments, and developing in all learners the capacity to carry on self-directed learning, the ultimate maturity required of the educated person. Independent Study programs offer learners varying degrees of freedom in the self-determination of goals and activities, and in starting, stopping and pacing individualized learning programs which are carried on to the greatest extent possible at the convenience of the learners." (15)

Dressel and Thompson (1973) stated that "Independent study, interpreted as a capacity to be developed, comes close to being if it is not, indeed, the major goal of all education." They defined independent study as "the student's self-directed pursuit of academic competence in as autonomous a manner as he is able

to exercise at any particular time." (16) Independent study, it is clear, is concerned with the provision of opportunities that develop the learner's capacity for self-direction and autonomy, whatever the institutional context, whatever the method, and wherever the learner may be.

Correspondence study was the first methodology to emerge in the direction of independence, and away from continuing dependence in learning. As a phenomenon within the independent study category it has a more secure identity and a significant relationship to mainstream educational theory and activity.

Moore observed that "Independent learning and teaching is a system consisting of three sub-systems, a learner, a teacher, and a method of communication. These sub-systems have critical characteristics distinguishing them from learning, teaching and communication in other forms of education. To understand the learning system, we must develop the concept of the "autonomous learner." To understand the communications system we must consider teaching at a distance, and to understand the teaching system we must modify traditional concepts according to the restraints and the opportunities that are consequences of distance and autonomy." (17)

Moore also pointed out that in independent study "teaching is, paradoxically, both responsive and anticipatory" and asks what the independent learner is independent of?

> "He is independent, first, of other-direction; he is autonomous. Second, he is independent of the space-time bondage made necessary only by a tradition of dependent or 'other-directed' teaching. The greater his autonomy, the more 'distance' he can tolerate, and therefore the more he is independent." (18)

Now, the distinguishing element in contiguous teaching is what is usually called "social interaction", which is defined as a relationship between two persons in which the "behavior of one is stimulus to the behavior of the other." However, millions of learners, particularly adults, do not learn in classrooms,

never meet or speak directly to their teachers, and many learn from teachers with whom they have no personal acquaintance at all. They participate in a form of independent study sometimes called "distance teaching and learning". Distance teaching is not a new concept; it was referred to by Lighty himself, who wrote of William Rainey Harper, that he "transported bodily all his long distance teaching institution to Chicago", and of Bishop Vincent of Chautauqua, that "he did see that teaching by long distance methods was feasible."

The difficulty with terms which focus attention on media, distance or place of learning is that they distract attention from those points of linkage which relate "independent study" to the mainstream of learning theory. Such terms separate rather than join. For example, the reference to "contiguous teaching" above suggests that only this form of teaching employs "social interaction"; and that in various forms of independent study, because teacher and learner are separated, social interaction does not in fact occur. Tom Brady, one of my graduate students, is doing research on the modes and quality of interaction between learners and teachers in independent study (the correspondence study method) which will relate to the theory of interaction in conventional teaching and learning, and include an original study of learning trauma, expressed for example in non-completions, which will illuminate the role of interaction in independent study. Two other graduate students, Professor Michael Moore and Mary Frances Holman, are probing separate aspects of the psychological theory of field dependence -- independence as a basic typology for classifying all learners and institutions. James Martin is linking independent study theory and institutional development with general sociological theory, and has come up with some intriguing equations which show promise of predicting consequences, for learners and institutions, when various facets of the independent study teaching-learning arrangement are manipulated. Independent study is thus joining the mainstream

of education, regardless of the particular method or medium employed.

Open learning, discussed as a worldwide trend in the previous section, owes much to independent study, and represents the employment of independent study, its liberation from ancient restrictions imposed in other times and contexts, and even its admission into the educational mainstream. More attention has been given to open learning in the last 6-7 years than was given to independent study in its various forms in the past 100 years; yet the symbiotic relationship of the two is clearly evident.

III. The Implications of the Open Learning Trend for Independent Study.

In fact, the chief—almost the only—difference between open learning and independent study is the institutional autonomy given to selected sub systems of independent study which operate under the 'open' rubric, within the total system of education.

The open learning trend has important implications for standard, conventional education, as well as for independent study. The implications would seem to be significant in seven areas: mission; operations; student body; academic, curriculum, instruction, learning and reward systems; access; diffusion and communications systems; and institutional support.

Mission. The implications of open learning are likely to be felt most strongly in a gradual re-valuation of the role and place of tertiary (post secondary) education in society. The open learning trend fundamentally poses value-laden questions such as, What are the values of education? What are the purposes of education? Who shall be given access to the opportunities of tertiary education? On what grounds shall tertiary education be subsidized? How shall tertiary education be held accountable to society: and How shall tertiary education be organized, diffused and governed?

These are philosophical questions that are periodically examined and reexamined. From that first Athenian grove named after Akadēmos, the answers to these questions over the centuries have reflected the value contexts within which each society gave role, place and power to education.

The open learning trend raises issues affecting the mission of every institution of tertiary education. The raising of issues will not impel every institution into open learning, nor should it. Institutions will make choices within the value contexts of that society (or part of society) which supports them. By making choices, institutions will also be selecting, though not necessarily determining, preferred consequences in their struggle for survival.

The open learning trend does not pose fresh issues never before considered. However, the changed contexts of our society have caused old issues to erupt with new force and clarity. It seems unlikely that these issues will be ignored; in fact, we are witnessing--just in our analysis of the open learning trend--how the process of confronting these issues has already produced changes of significance.

It seems likely that whatever revaluation takes place, the net outcome will be institutional missions towards a greater rather than lesser diversity in tertiary education. At the same time there may be greater (wider) concept space between different types of institutions than has been the case in the past. Let us look at the unique purpose of tertiary education--knowledge--in all its aspects.

Some tertiary institutions will choose or continue an institutional mission which makes knowledge an end in itself. This is a proper and important mission. The knowledge needs of society are increasing rather than diminishing. Institutions which choose to go this way, or continue this way, are likely to benefit from a sharpened, more specialized mission, which will provide them with more concept space--more separation--from other types of institutions.

Some institutions, on the other hand, will choose a mission which makes knowledge a means to other social and humane ends. The mission of these institutions will be the application of knowledge. In the past, when institutions tried to serve both the knowledge-as-end mission and the knowledge-as-means mission, inevitably one or the other suffered. Reward systems, for example, have tended to be unitary even where there was a dual mission. It seems likely that both types of institutions would benefit by widening the concept space between them.

Open learning systems will find more ready acceptance in institutions with knowledge-as-means missions. Indeed, the open learning trend is fundamentally an eruption of knowledge-as-means as a mission equal in importance to knowledge-as-end. There is a profound difference between the knowledge-as-end and the knowledge-as-means positions, a difference which has been obscured because past societal and value contexts have determined a unitary, hierarchical typology for the main business of tertiary education--knowledge. Knowledge for what, seems to be implied in the open learning trend. For itself? As a means to other ends? (Social, individual, economic, or whatever.) For both?

Some institutions will continue to have a dual mission with respect to knowledge. These may well be the institutions which have developed (or choose to develop) that aspect of tertiary education known in the U.S. as university extension. As mentioned earlier, the seeds for open learning were sown in the extension movement of late 19th-early 20th century. For complex reasons, university extension reached a conceptual plateau in the 40's and 50's, and while it has grown in size and significance since, there was not a fertile base in the university itself for the nurturing and maturing of the extension concept. There was, perhaps, insufficient concept space between the knowledge-as-end and knowledge-as-means missions of the university, and extension remained in a sub-priority position in the hierarchy regarding knowledge which generally prevailed.

The open learning trend implies that institutions which follow a dual mission with respect to knowledge will be likely to increase the concept space between the knowledge-as-end and knowledge-as-means missions. This suggests equal priority for each mission, and greater autonomy and structural separation of the two functions. The open learning trend provides evidence that these processes with respect to mission are already going on.

Mission has been discussed chiefly with respect to knowledge-as-end and knowledge-as-means, and so far we have not mentioned the traditionally stated tertiary education mission, the trinity of teaching, research and public service. What the open learning trend implies is a somewhat different view of the knowledge missions of higher education, with teaching, research and public service as proper and essential activities of each type of mission, whether knowledge-as-end, or knowledge-as-means. Institutions which combine both missions are likely to find that the question of providing concept space between these missions is more difficult than neatly separating the missions into different institutions.

Independent study institutions at the tertiary level also face difficult questions of mission, although their origins were clearly on the side of knowledge-as-means. Form, as the saying goes, tends to follow function. Mission provides function, expressed in aims, objectives, structure, organization and programs; and the mission objectives then become the only realistic basis for assessing institutions and holding them accountable to society.

Operations. This category includes administration, admissions, accreditation, inter-institutional relationships at local, regional and national levels, interface with community, business, industry and government agencies, and the determination of strcuture and organization necessary to accomplish function.

The open learning trend implies shifts from the conventional in all these spheres. Whether an institution selects one or the other of the knowledge missions,

it will still have options respecting how its mission is to be achieved. Whether it chooses more, less, or no openness, the institution must survive in a social milieu which includes the re-ordering of educational priorities on the basis of increased learning needs throughout life for nearly all people. With only finite resources, we must anticipate some painful reallocation of educational dollars in the years ahead.

Institutions which move towards openness will alter traditional admissions policies, accreditation processes, and adjust operations and administration to new or different priorities. Accreditation, which in the past was denied or only conditionally granted to independent study institutions will become directly accessible irrespective of distance methodologies, and based only, as is proper, on the demonstrated quality with which an institution carries out its mission. Operational characteristics will tend, inevitably, to become more specialized because the need to follow conventional institution models as closely as possible will no longer be present.

Students. In the past, tertiary education students were largely full time youth on campus. The open learning trend implies that this will change. Part-time learners from youth through adulthood will become the new norm. The statistical average/mean age of students will increase gradually until it is about ten or more years higher than it is now. Flexible admission requirements--or no requirements at all--will open learning on the basis of need, motivation, maturity and experience, and not on the basis of previous education or certification. Between 1972 and 1974 part-time learners in American tertiary education equalled and began to exceed in number the full-time learners who were generally assumed to be the consumers of tertiary education. This is a statistic of great significance. Not only are the new learners largely part-time, most of them do not anymore live on campus. Many of them are distant learners with independent

learning styles. These learners are gradually being accorded equal status with full-time conventional learners. More mature, they demand the right to determine their own goals, to participate in the development of curricular and course plans, and to be involved in the evaluation of their achievement. Open learning--just as independent study--appeals at present largely to middle class adults, and women seem to be attracted to both about as much as men. Whether institutions choose open learning programs or not, the spin-offs from this phenomenon will be likely to have impact even on regular programs, but will raise far reaching questions about curricula for the new populations of learners, especially as open learning and independent study institutions begin to attract those who are most in need of them, the minority, deprived, and least-served segments of society.

Academia. The open learning trend implies changes even in the stately halls of Academia. New faculty roles, in which there is less teaching of the lecturing style, and more individual counseling seems implied. Faculty may find themselves gently nudged towards the Platonic model, with teacher as mentor, guide, and problem solver, rather than information and law giver. In addition, courses for distant, independent learners, using various media and technology in systems designed formats will occupy an increasing proportion of faculty time and talent. Faculty responding to the new openness will work more in teams, will share authority in certain activities with others, including learners. In institutions which emphasize knowledge-as-end, there will probably not be as much change. In institutions which have a dual mission, faculty members may have dual roles, or have the option of either.

The academic department may come under extreme pressure because of the requirements of the interdisciplinary team approach that will characterize course and materials development. In some cases it may give way to a different form, implying a change in academic governance. Tenure and academic freedom may be

viewed differently. In the case of tenure, there are implications that this much sought after status may be somewhat more restricted, but compensated perhaps by alternate kinds of job security. Other grades of faculty personnel will be more extensively used, of the specialist or adjunct type, drawn in from the community.

While there is no implication that academic freedom is likely to be modified in any way, the very openness of the learning process may provide a new dimension to academic freedom. Anyone in Britain, for example, can tune in on Open University courses via radio or television, and can purchase O. U. course guides and materials in any bookstore, or get them in any library. Hence, the university aims, courses, processes, materials, staff and evaluations are continually under broader public scrutiny than has ever been true of higher education before. Issues of academic freedom have primarily been campus affairs, adjudicated, as Taylor points out, under agreed upon procedures in a confined arena. (19) In open institutions with widely diffused programs, the arena for any dispute is no longer confined, and different procedures may have to be evolved. Certainly a high degree of faculty responsibility in controversial areas will be required.

There seems to be no implication that research will be directly affected. Those who are qualified and want to do research, either pure or applied, will carry on research according to institutional mission. Those who do not want to do research, or are not qualified, will not find themselves foreclosed from achieving the upper ranks, at least in institutions which are knowledge-as-means oriented.

Quality control, once more or less exclusively the domain of academia, will be shared with others, including students. More objective means of quality control in research, teaching, counseling, curriculum design, materials development, assessment and administration, are likely to come into wider use, partly because

of the design complexity of open institutions, partly because instruction and materials design will proceed along behavioral lines, and partly because of ideological tendencies.

Independent study institutions will find in these implications more rather than fewer options for development.

Curriculum, Instruction, Learning and Rewards. Curriculum, instruction, learning and rewards have traditionally been under the control of the faculty. Open learning implies that institutions will become more learning and learner oriented. Institutions will evolve dual systems of teaching and learning; these two activities will be conceptually separate, as indeed they are in reality. Knowledge-as-end institutions will put the emphasis primarily on subject matter; knowledge-as-means institutions will emphasize learning as a problem solving process in knowledge-applying situations. The rapidity with which knowledge is generated, and the inescapable implications of knowledge obsolescence, have already hastened this development.

The controls over curriculum and rewards (this implies the assessment of learning) will gradually be shared with others in the team process, including learners.

The environment for learning will not be confined to the special areas and facilities of a campus, but will be perceived as the learner and his surround wherever he is, distant or close, part-time or full-time. (20) Efforts will therefore be made to enrich the distant environments of independent learners through cooperation with community agencies, business, industry, libraries, laboratories and government agencies. Instruction and learning materials will be designed to strengthen and reinforce the learner in his environment. To this end, a proposal has been made in the U.S. that no future public housing be approved unless it includes a learning center for the use of all members of the family. (21)

Learning is a phenomenon that occurs where the learner is.

One of the ancient aims of education--helping the learner to become independent of "other direction" in learning, so that he can take responsibility for learning throughout his life--will assume a new prominence. Efforts will be increased to diminish the dependencies of learners--especially in tertiary education. Learning will be viewed by more and more people as a self-directed activity that must continue throughout life in many contexts and circumstances.

The present age and certification barriers that separate the education of infants, children, youth and adults will become blurred. Stopping in and stopping out, as needs and situations change, will become more common. Situational learning will motivate many to take up learning again and again, no matter how distant from a higher education institution, using a variety of media, technology and materials. Accreditation and the rewards of degrees and other diplomas will have nothing to do with the place where the student learns, how or in which sequence he learned, or at what pace, but only with whether he learned and can demonstrate the competencies and behaviors which were the objectives of the course. (22) Short seminars, vacation schools, and concentrated laboratory periods will bring faculty and students together periodically on a face-to-face basis. More attention will be given to the "no significant difference" findings of past comparative studies of instruction methods which negate the view that non-traditional approaches reduce instructional standards and quality of learning.

Independent institutions will be more at home in applying these concepts than more traditional institutions, and will find their work more widely accepted.

Diffusion, Access, Communication. Open learning implies more options and choices in learning. Part-time learners in particular will take advantage of improved access to learning opportunity diffused through various communications media. Print, writing, television, radio, the telephone, the computer, graphics,

programmed systems, the satellite, tape systems, the video disc will find a place in the diffusion of instruction and learning resources for learners who will communicate as freely or more so than at present. New student bodies will be attracted to rolls of tertiary institutions.

As we have already found in a world short of energy, there are many things which we can learn to do as well as, or better than, we did when our first assumption was that people must be physically transported so they can assemble at our feet. The challenge to technology and to ourselves is to learn to communicate affective and cognitive meanings even more effectively and more humanely than we do at present, for this is an implication from the open learning phenomenon and the independent study tradition.

Institutional Support. While Dr. Harrington's caution respecting the paucity of monetary support in the immediate future is well taken, in time this period too will pass away. The legal and financial bases of higher education will eventually/hopefully undergo change according to the implications of the open learning trend. New kinds of institutions will require special or modified legislation. Private, non profit institutions will become eligible for certain kinds of federal and even state, subsidy. Part-time learners, who have always been penalized by paying higher fees and receiving fewer rewards, will be treated on an equal basis with full-time learners. (23) Adults, who in extension and adult education programs have always had to pay close to 100% of costs for continuing learning, frequently without academic reward, will eventually be subsidized on a comparable basis with youth simply because it will become recognized that society is the co-beneficiary of any learning which improves a person's life, career, earning power, or coping power. It will make even more sense to subsidize adult learning, since any improvement in adult living, coping, earning is immediately expressed in higher taxes paid on income, in less demand for

welfare or assistance, or an improved community. Industry, business, and government will directly subsidize workers who continue learning and can demonstrate improved competence. The elderly (as we note already) will be encouraged to continue learning under higher subsidy as a means of enriching life and understanding, and of increasing communication between learners of different ages to compensate for the social dangers inherent in the shutting out of elderly people from normal social intercourse, particularly with youth.

Since learning will occur in the environment of the learner, wherever that is, many of the social, legal and financial procedures now in effect will be modified. The social-economic-political support patterns of tertiary institutions will be broadened as the implications of open learning are perceived and acted upon. Consortia, regional agreements, national networks of cooperation and collaboration will have new significance. The issue of local control of education will become less significant as responsibility for learning is more and more the prerogative of the self actuated learner. Again, independent study institutions will be able to accommodate to such changes with less trauma than others.

As noted earlier, even institutions which choose not to be involved in open learning will be the beneficiaries or victims of the changes implied in the trend we have been discussing. Quite obviously the benefit that many seek is the achievement of a "learning society", as so eloquently depicted by Robert Hutchins and Edgar Faure. (24)

The implications of the open learning trend for tertiary education are, of course, speculation, but let us hope that they are at least intelligent speculation, even though intelligence, as the French mathematician Emile Picard observed, "is that faculty of the mind, thanks to which we finally understand that everything is incomprehensible." (25)

The open learning trend is a child of independent study. It affects its

parents in significant ways. This child, in fact, may win the acceptance so long denied to its parents. This, in itself, will have a significant implication -- as suggested here -- on virtually every aspect of our work.

References

(1) Guèhenno, Jean, Sur le chemin des hommes, p. 24. French Wit and Wisdom, Joseph Palmeri, Straus, 1963.

(2) Wedemeyer, Charles A., "The 'Open' School: Education's Runnymede?" Educational Technology, Vol. 12, No. 1., January, 1972, pp. 65-68.

(3) Wedemeyer, Charles A., "Characteristics of Open Learning Systems", Report of NAEB-NIE Advisory Committee on Open Learning Systems; November, 1973, New Orleans NAEB Conference.
Open Learning Systems (co-authors, Carroll Newsome, Donald McNeil and John Witherspoon), National Association of Educational Broadcasters; A study sponsored by the National Institute of Education; James Fellows, Study Director. Washington, D. C., March, 1974, 35 pp.

(4) James Martin, Post Doctoral Fellow in Extension Education at the University of Wisconsin (now at the University of Minnesota) queried 84 U.S. institutions which were identified as 'open'. From the 55% of the institutions which made useable responses, data were analyzed according to 12 variables derived from the characteristics given here. A matrix was developed which provides some tentative indices of institutional openness when applied to a given institution. "Open Learning Systems", November, 1973, a background paper for the NAEB Advisory Committee on Open Learning.

(5) For a fuller treatment of contextual change see Wedemeyer, Charles A., "With Whom Will You Dance?--The New Educational Technology," Journal of the American Dietetic Assoc., Vol. 53, No. 4, October, 1968, pp. 325-328, and "The Once and Future School", in Proceedings of Seminar on Open Learning, Educational Media Council, Washington, D.C., 1973.

(6) Wisconsin Open School Survey. Charles A. Wedemeyer and the Wisconsin Survey Research Laboratory. Governor's Commission on Education, Madison, 1970.

(7) Dubin, Robert, and T. C. Taveggia, The Teaching-Learning Paradox: A Comparative Analysis of College Teaching Methods. Center for the Advanced Study Educational Administration, University of Oregon, Eugene, 1968.

(8) Wedemeyer, Charles A., "Independent Study", The Encyclopedia of Education, Lee C. Deighton, Editor-in-Chief; The Macmillan Company, New York, N.Y., Vol. 4, 1971, pp. 548-557, and "Independent Study", Handbook of Contemporary Education, to be published by Xerox Corporation through the R. R. Bowker Company, 1975.

(9) Educational Testing Service, Princeton, N. J. John Valley periodically issues a list of such institutions.

(10) Wedemeyer, Charles A., "Implications of the Open Learning Trend for Higher Education", an address to the Faculty of the University of Louisville, March 7, 1974.

(11) Wedemeyer, Charles A., "Theory of Learning by Correspondence - Some Theoretical Propositions"; Keynote address, NHSC Workshop, October 7, 1974, The University of Notre Dame.

(12) Bonthius, Robert H., F. Jones David, and J. Garber Drushal. The Independent Study Program in the U.S., N. Y., Columbia University Press, 1957, pp. 3-8.

(13) Gleason, Gerald T. "Technological Developments Related to Independent Learning." The Theory and Nature of Independent Learning (Gleason, ed.) International Textbook Co., Scranton, 1967.

(14) Dubin, Robert, and T. C. Taveggia, The Teaching-Learning Paradox: A Comparative Analysis of College Teaching Methods. Center for the Advanced Study of Educational Administration, University of Oregon, Eugene, 1968, pp. 29-30.

(15) Wedemeyer, Encyclopedia of Education, op.cit, p. 550.

(16) Dressel, Paul L. and Mary Magdala Thompson. Independent Study. Jossey-Bass, San Francisco, 1973, VII, 1.

(17) Moore, Michael Graham. "Towards a Theory of Independent Learning and Teaching", 1972, pp. 2-3.

(18) Ibid, pp. 37-38.

(19) Taylor, John F. A. "Politics and the Neutrality of the University", AAUP Bulletin, December, 1973. This issue is also discussed by Charles A. Wedemeyer and Sir Walter Perry, Vice Chancellor of the British Open University, in "Conversations", a half hour video tape made in London, 1972, under sponsorship of BBC and U.S. Endowment for the Humanities. Available (as video tape or 16 mm film) from USIA or The University of Wisconsin-Milwaukee, Instructional Media Laboratory.

(20) Charles A. Wedemeyer, "The Teaching-Learning Environment," Frontiers in Education, Third Annual Proceedings, ASEE/IEEE, New York, 1973, pp. 8-10.

(21) Issues and Public Policies in Educational Technology, Advisory Committee on Issues in Educational Technology, Commission on Education, National Academy of Engineering, Lexington-Heath, 1974.

(22) Within the past month the first American correspondence school (the American School, Chicago) has been directly and fully accredited by the regular regional accrediting association, the North Central Association of Schools and Colleges.

(23) "The New Majority in Postsecondary Education: A Study of Enrollments and Financing Patterns for Part-Time Students", Report of the American Council on Education Committee on Financing Higher Education for the Adult Student, Robert Pitchell, Chairman, February, 1974.

(24) Hutchins, Robert U., The Learning Society, Praeger, New York, 1968. Edgar Faure et. al., Learning To Be, UNESCO-Harcap, Paris, 1972. The Carnegie Commission on Education, Toward a Learning Society, McGraw-Hill, 1973.

(25) Picard, Emile. "Réponse au discours de réception du Prince de Brozlie a l' Academia Francoise", p. 65; French Wit and Wisdom, Joseph Palmeri, Straus, 1963.